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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,795	01/18/2002	Douglas C. Watson	NIKOP013/PA0251	4272
22434	7590	06/04/2003		

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EXAMINER
MOHANDESI, IRAJ A

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/053,795	WATSON, DOUGLAS C.
	<b>Examiner</b> Iraj A Mohandes	<b>Art Unit</b> 2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 January 2002.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5,7-14 and 17-28 is/are rejected.
- 7) Claim(s) 6,15 and 16 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>05/03</u> .	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-5,7-14,17-19,21-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Li US patent 6,417,914** in view of **Haditsch US Patent 5,300,847**.  
**Li'914** discloses an electron beam projection system comprising ; at least one process chamber,( the enclosure 22,23,Fif.1) at least one movable stage (W1,W2,column 8,line 50,Fig.1) and at least one electric stage motor (32,Fig1) for moving the stage, wherein the electrical stage motor includes magnetic coils (63 ,column14,line 23,) encased in a coolant jacket(68,column 14, line 45-50 ) which encloses the coils and encloses a coolant material, the coolant jacket includes coolant input lines for supplying coolant to the coolant jacket (flat passage 68, see Fig.4) the coolant jacket inherently includes coolant lines for allowing the coolant to flow out of the coolant jacket (see Fig.4) electron beam projection system contains therein a vacuum environment (column 28,line 2) the coolant contained in the coolant jacket consists of an electrically non-, conductive coolant material ( column 14,line 53 coolant is a refrigerant 'non-conductive'). However **Li'914** teaches all limitation of the claimed invention except a connecting wire " electrical lead" passing through the cooling system and energizing the coil.

**Haditsch'847** discloses an electrical machine having current supply line through the cooling chamber(abstract and column 4,line 5-15) for the purpose of energizing the magnetic coil.

Therefor it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine **Li'914** linear motor for electron beam with a connecting wire passing through the cooling system as taught by **Haditsch'847** for the purpose of energizing the magnetic coil.

With respect to **claim 20**; it also have been obvious to one having skill in the art at the time the invention was made to provide three phase coil, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Papare Co.v Bemis 193 USPQ 8.

#### ***Allowable Subject Matter***

3. **Claims 6,15 and 16** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Communication***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iraj A Mohandes who's telephone number is (703)305-3242. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-0377.



IM  
May 21, 2003